Campylobacter Outbreak Associated with Raw Milk Consumption

AZID 2015

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Utah Department of Health

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What am I going to talk about?

- What is Campylobacter?
- Utah Public Health
- The Outbreak
- Lessons Learned

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Collaborative Investigation

Division of Epidemiology & Laboratory Services
Utah Department of Health

WEBER MORGAN
HEALTH DEPARTM

Davis
COUNTY

SALT LAKE
COUNTY
HEALTH
DEPARTMENT

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

UDAF

DEPARTMENT OF HEALTH & HUMAN SERVICES • USA
FDA

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HEALTH

What is Campylobacter?

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How do you get Campy?

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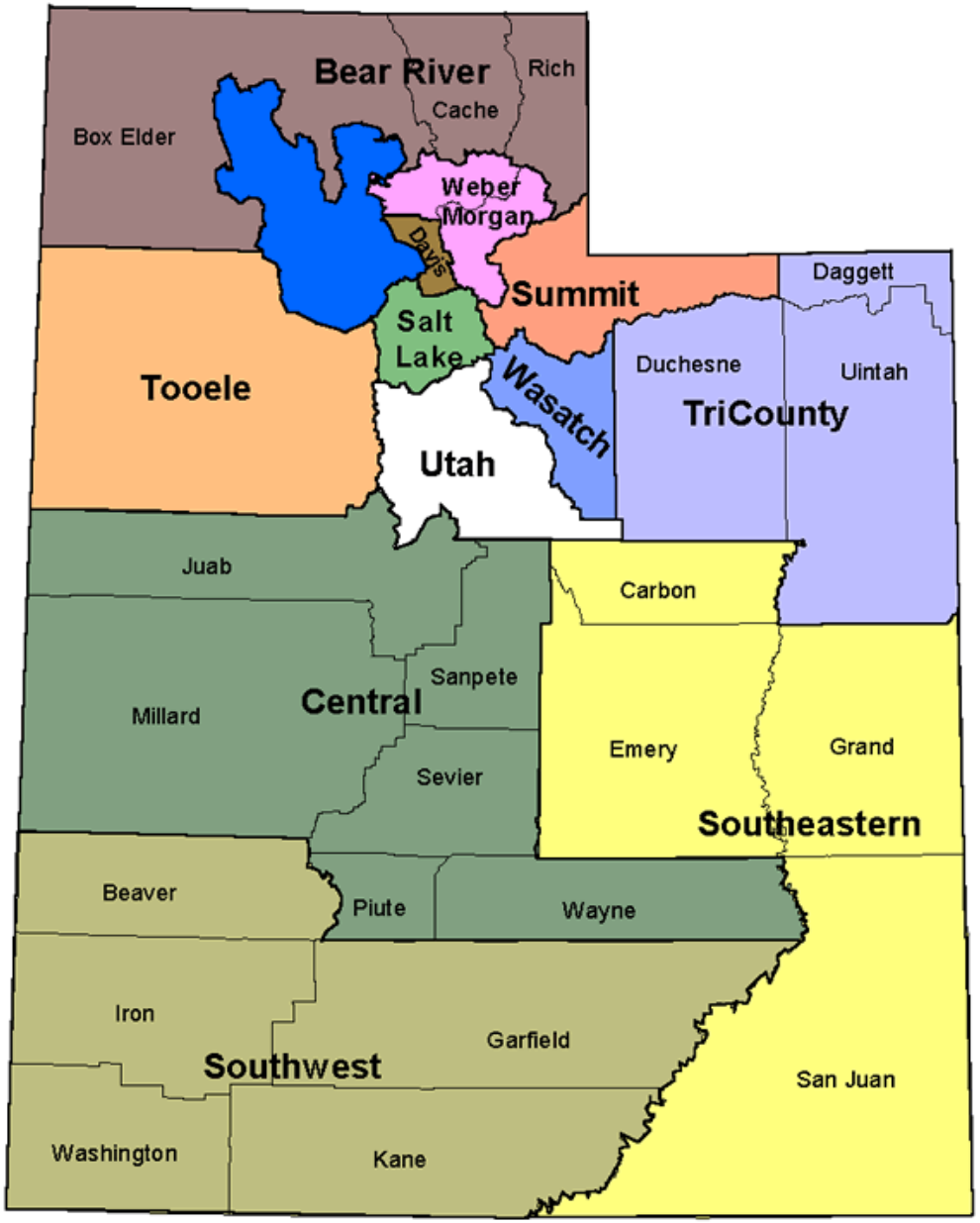

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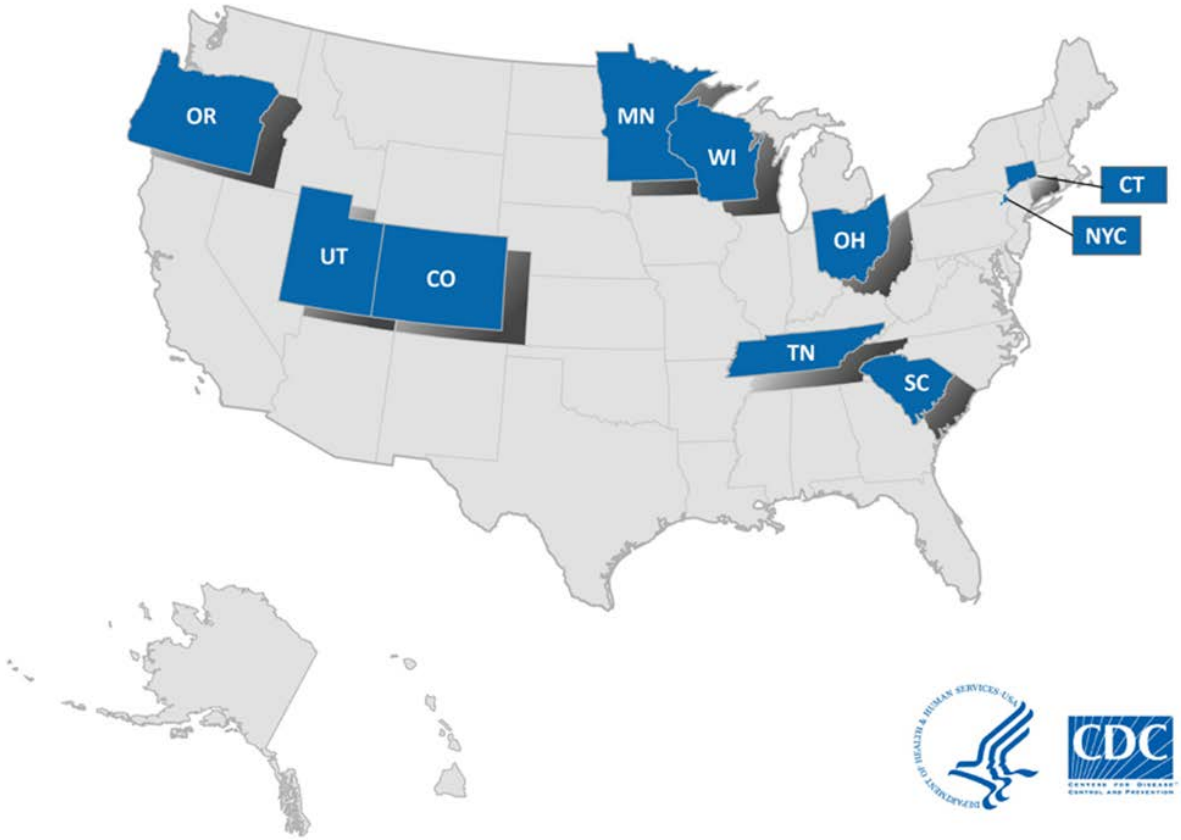
FoodCORE sites



Campy in Utah

Between 2009 – 2013

20 raw milk outbreaks

250 people

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Raw Milk Laws

1. Permit
2. Testing
3. Limited Sales
4. Record Keeping

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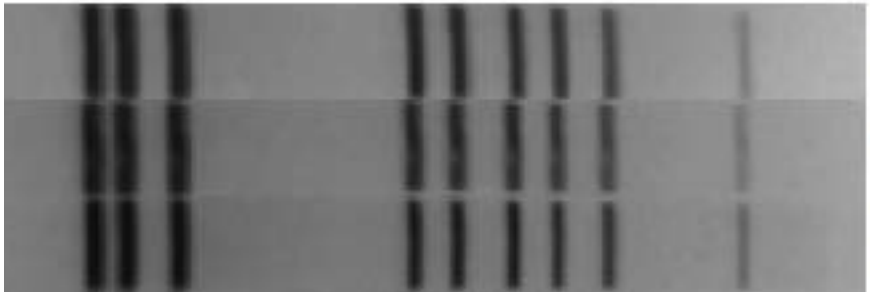
The Outbreak



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Utah Public Health
LHD name
LHD address line 1
LHD address line 2
Phone: (801) xxx-xxxx
Confidential fax: (801) xxx-xxxx
Date finalized

CAMPYLOBACTERIOSIS

Confidential Case Report

Please fill in the blanks or check the answer for each field

UTAH PUBLIC HEALTH — It's for Everybody, Everywhere, Everyday

DEMOGRAPHIC INFORMATION

UT-NEDSS ID _____

Last name _____ **First / MI** _____

Address _____ **City** _____ **Zip** _____

County _____ **State** _____ **Phone number(s)** ❶ _____ ❷ _____ ❸ _____

Date of birth _____ **Age** _____ **Gender** ☐M ☐F **Parent/Contact** _____

Race ☐White ☐Black/Af. Am ☐Amer. Indian ☐Asian ☐Alaska Native ☐Native Hawaiian/Pacific Islander ☐Other ☐Unk

Ethnicity ☐Hispanic ☐Non-Hispanic ☐Unk

Refugee or recent immigrant? ☐Y ☐N ☐U **If yes, how long has the patient been in the USA?** _____

CLINICAL INFORMATION

Onset date: Symptoms: ☐none ☐nausea ☐vomiting ☐abdominal pain ☐diarrhea ☐bloody diarrhea ☐fever

Date resolved: ☐ongoing

	Y	N	U	Details
Seen by physician (including ED)?	☐	☐	☐	Physician/ED: Phone: Date:
Hospitalized?	☐	☐	☐	Health facility: _____ Medical Record Number: From: To:
Died?	☐	☐	☐	Date of death:
Pregnant? ☐N/A	☐	☐	☐	Due date:
Treated?	☐	☐	☐	Treatment: Start: End: ☐Not finished
Guillain-Barré?	☐	☐	☐	If yes, date of diagnosis:
HUS or TTP?	☐	☐	☐	If yes, which? ☐HUS ☐TTP Date of diagnosis: *(complete supplemental HUS/TTP form)*
Immunocompromised?	☐	☐	☐	If yes, explain:
Co-infected?	☐	☐	☐	If yes, disease:

LABORATORY INFORMATION

Lab name/phone:		Test type: ☐culture ☐EIA ☐other:	
Lab result: ☐pos ☐neg ☐pres. pos ☐inconcl. ☐pending	Specimen source: ☐stool ☐other:		Collection date:
Species:	**Specimen sent to UPHL?** ☐Y ☐N ☐U	**UPHL ID:**	**PFGE:**

HIGH-RISK OCCUPATIONS / SETTINGS (EPIDEMIOLOGICAL)

Occupation: *(check all that apply)*: ☐child ☐student ☐volunteer ☐unemployed ☐retired

Y N U **If yes to any, list details for each:**

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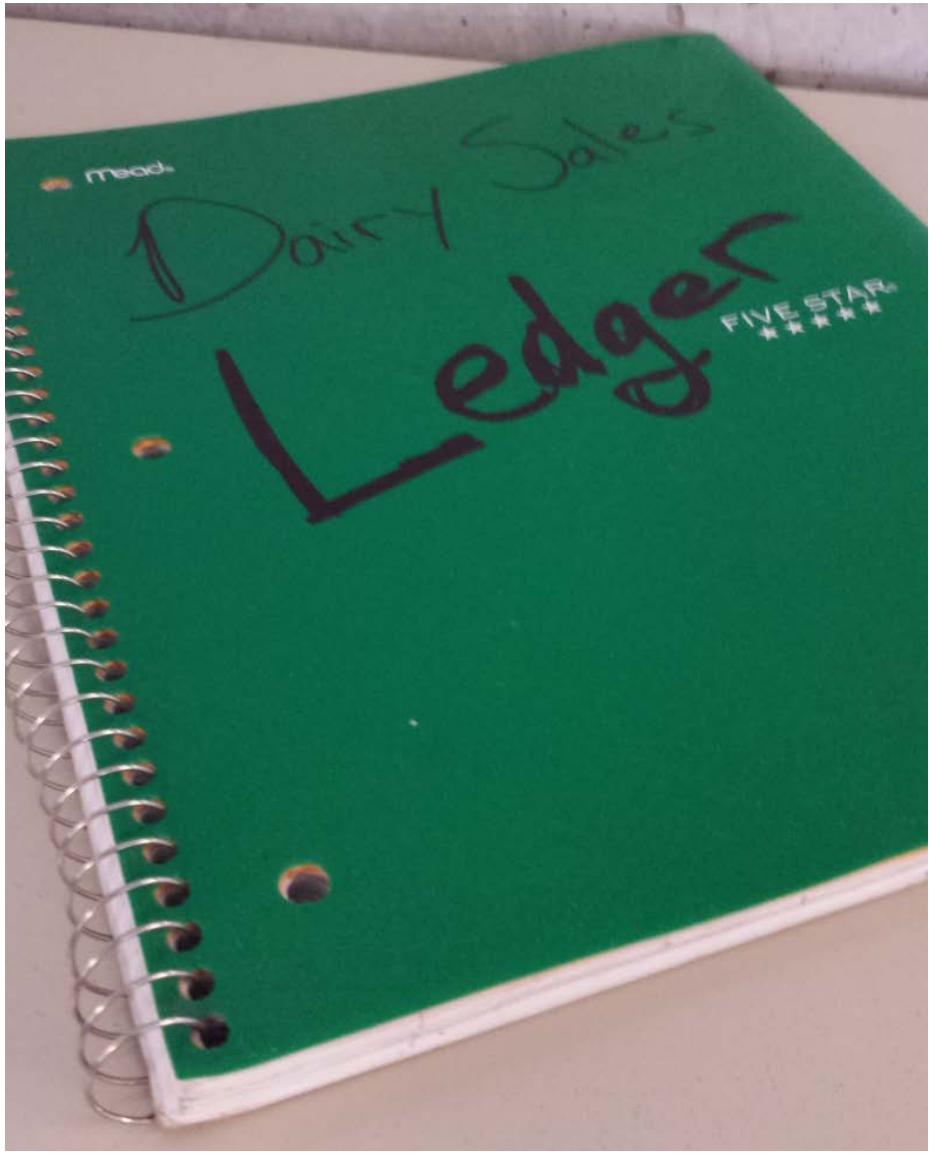

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Testing

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Sample Results

Condition & Organism

Campylobacteriosis
Campylobacter jejuni

Local Lab

Child LOINC:	6463-4
Child LOINC Name:	Bacteria XXX Cult
Local Test Code:	BACTERIAL_CULT
Local Test Name:	Bacterial Culture
Specimen:	Other
Lab Result Value:	66543000 [CAMP_JEJ]
Reference Range:	
Abnormal Flag:	

Test Type:	Specimen:	Test Result:	Result Value:	Units:	Test Status:
Culture	Other	Positive / Reactive			Final
Comment:		**Reference Range:**		**Collection Date:**	**Lab Test Date:**
		Negative		07/29/2014	08/05/2014

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Utah suspends Weber County dairy's license over foodborne illness

By Kristen Moulton The Salt Lake Tribune

Raw milk sickens 45 in Utah

By Jacque Wilson, CNN
Updated 10:27 AM ET, Wed August 27, 2014

Utah Reports 45 Campylobacter Illnesses Linked to Raw Milk Dairy

BY NEWS DESK | AUGUST 27, 2014

At least 45 sickened after consuming Utah raw milk

By Mike Anderson and Viviane Vo-Duc

August 26th, 2014 @ 7:07pm

Outbreak of illness linked to Weber County dairy farm, health officials say

By Michael Anderson
By Viviane Vo-Duc
For the Deseret News
Published: Tuesday, Aug. 26 2014 6:50 p.m. MDT

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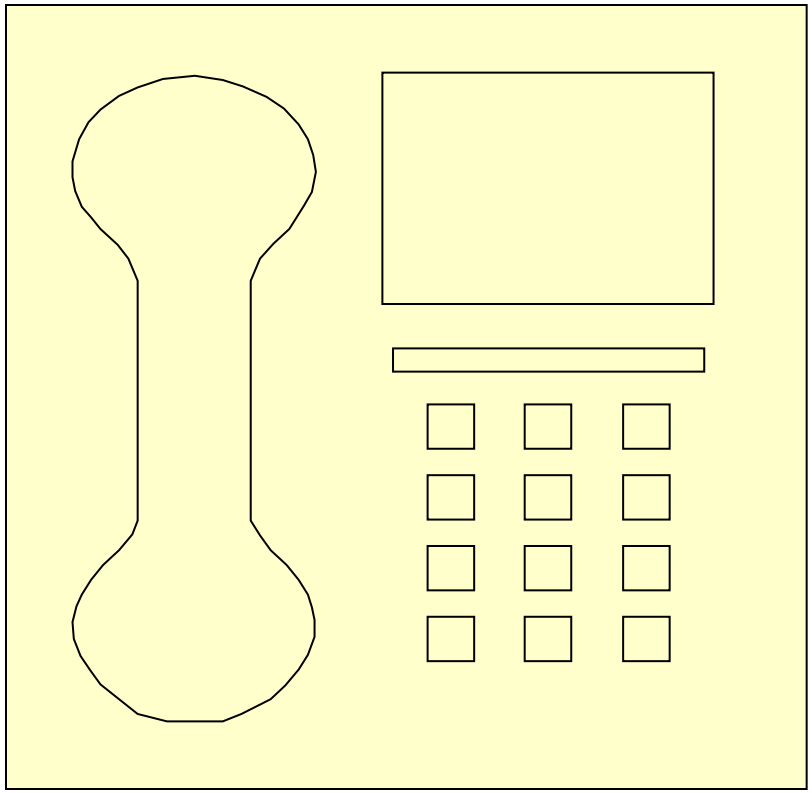

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Case Definition

A **confirmed** case was defined as diarrhea caused by C. jejuni matching the cluster PFGE pattern or confirmed Campylobacter infection with Dairy A raw milk exposure.

A **probable** case was defined as diarrhea, plus contact with a confirmed patient or raw milk consumed from Dairy A.

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Demographic Information	No. (%) n=99
Female	41 (41%)
Hispanic	31 (31%)
Age (years)	
0-5	11 (11%)
6-18	32 (32%)
19-64	44 (44%)
≥65	4 (4%)

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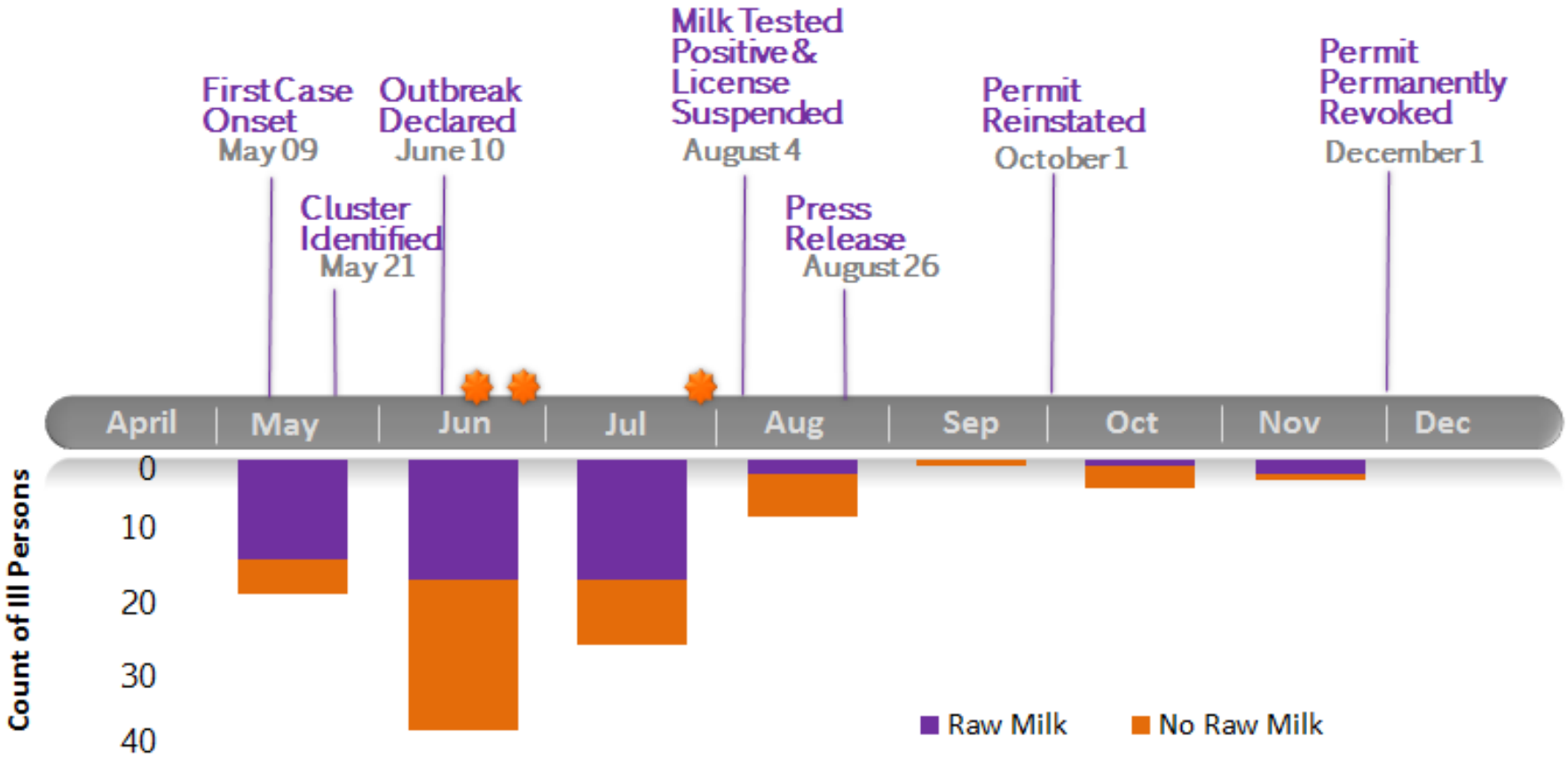

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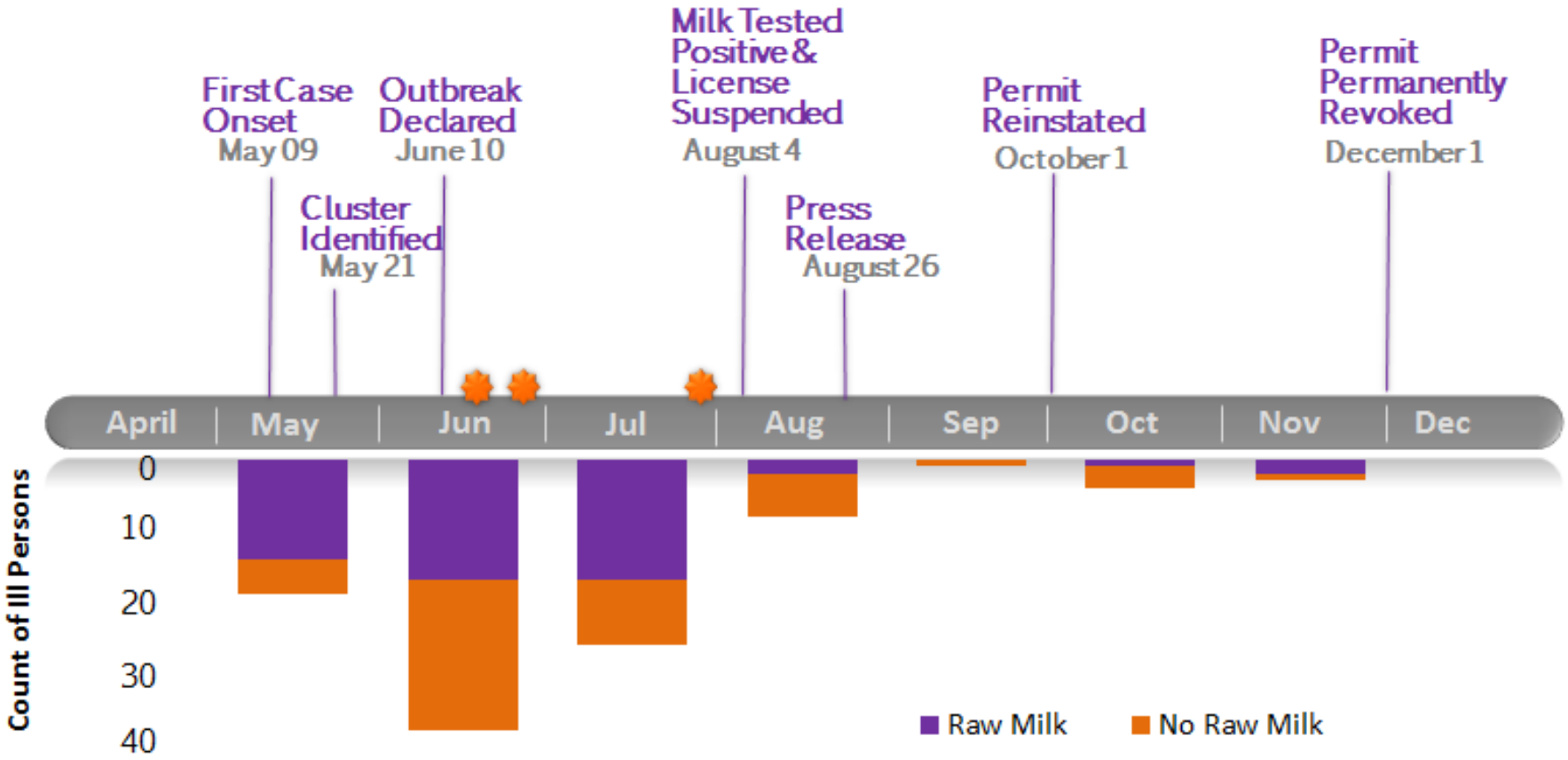

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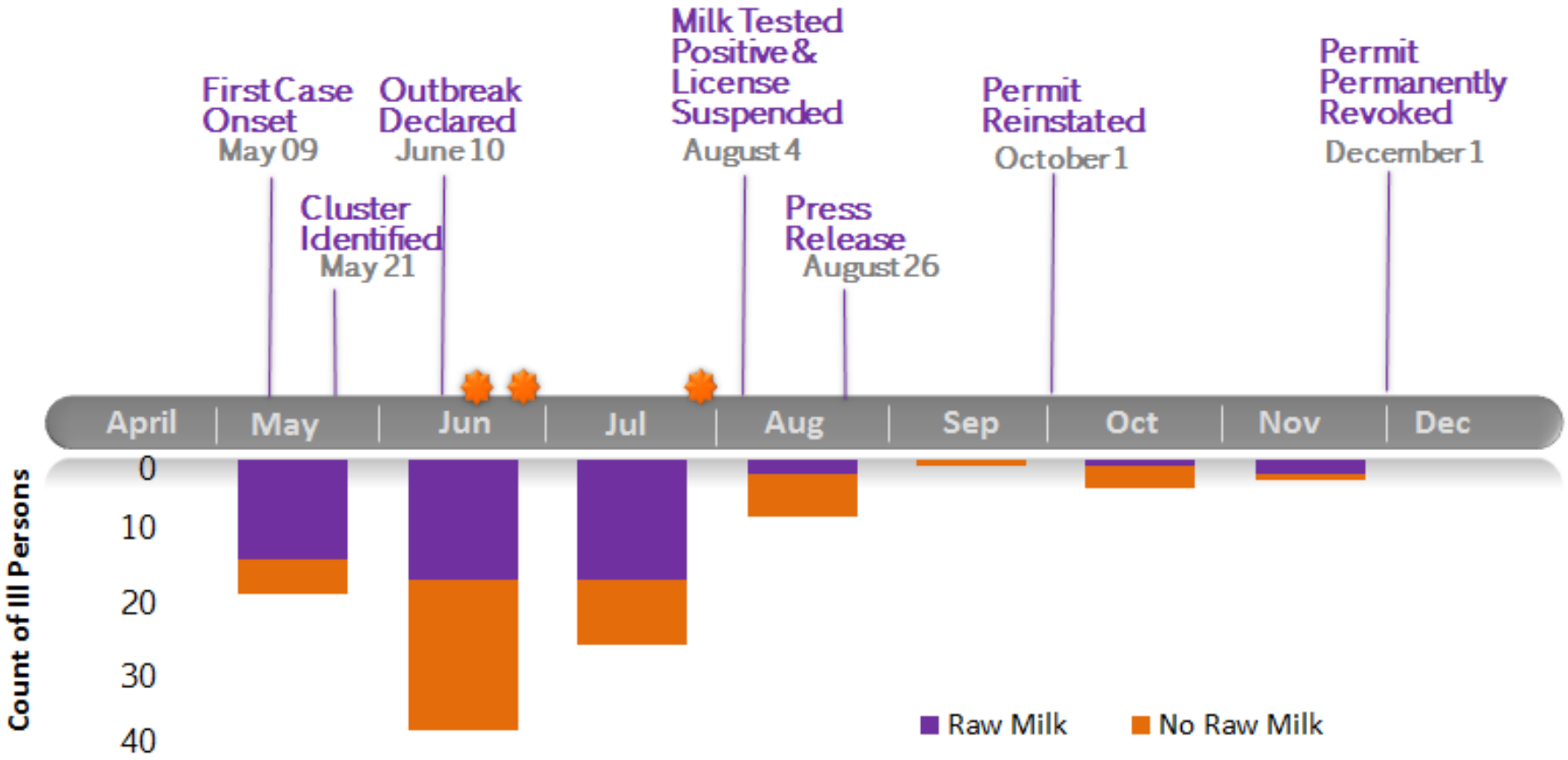

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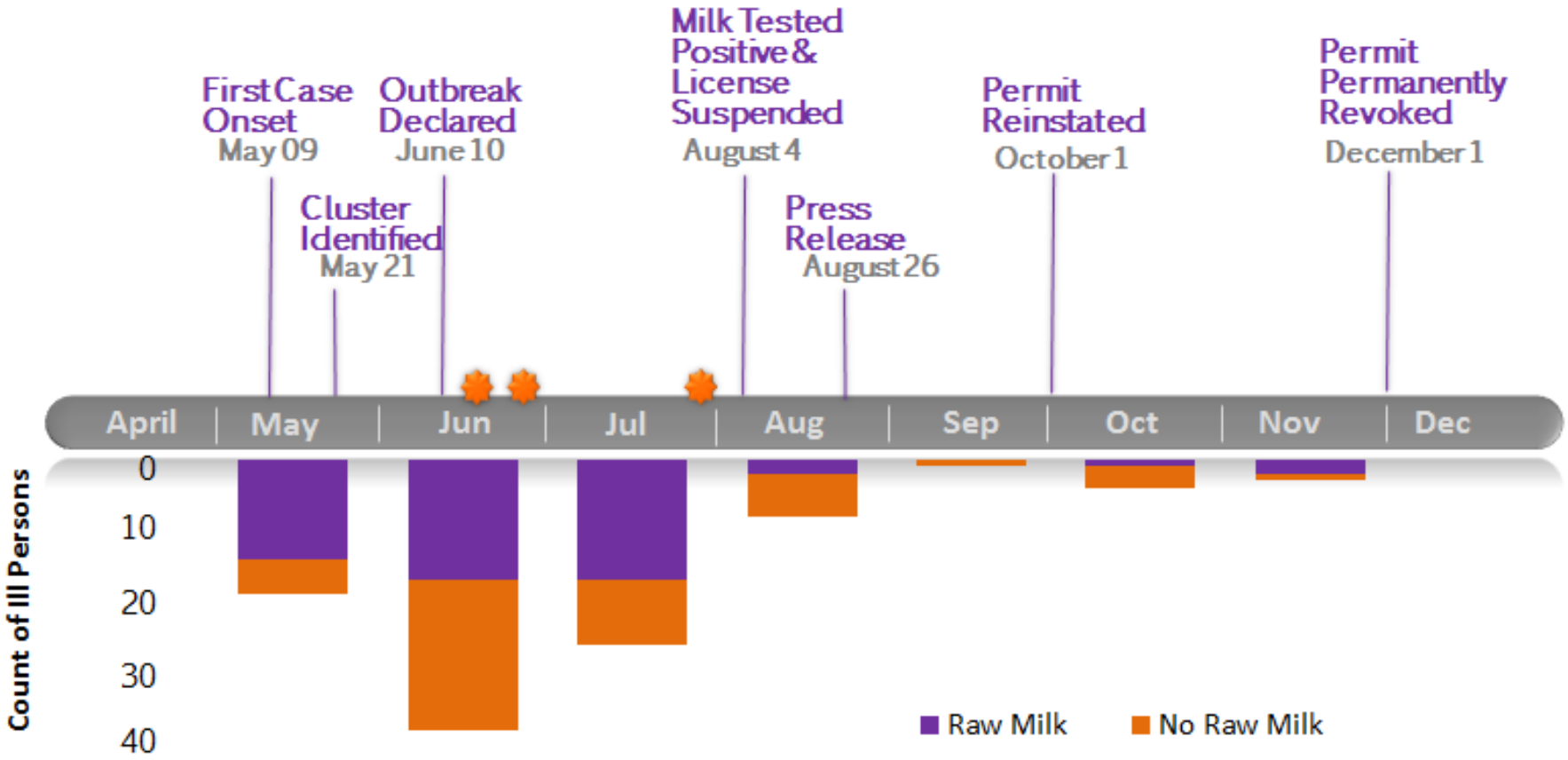

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Lessons Learned

- Current routine testing of raw milk does not ensure its safety
- Proper laboratory techniques can lead to *Campylobacter* isolation from raw milk
- Outbreaks go much smoother if you maintain and enhance relationships with different public health partners

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Questions?

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